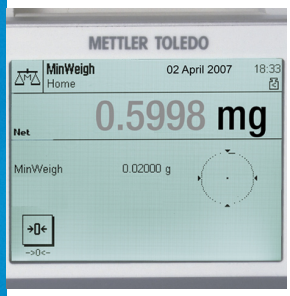
MX / UMX Micro Balances

Highest accuracy
with the smallest samples



Reliable results
You determine the minimum weight. If it is not reached, MinWeigh detects the error, warns you and prevents further use of non-compliant weighing results.

Hands-free operation
SmartSens are two sensors for hands-free operation. The chamber opens and closes automatically on all sides. You focus directly on handling the sample.

User-friendly
Thanks to touchscreen technology, configuring the balance is easy. The screen guides you. Select and confirm with a touch of your fingertip.

Maximum sample yield
Expensive substances and compounds are saved because smaller amounts of sample can be weighed in with the highest precision.

MX/UMX Micro Balances
Guarantee maximum yield of valuable substances

Handling precious substances requires smallest samples – and the fulfillment of accuracy requirements as tolerances are becoming tighter. METTLER TOLEDO UMX and MX microbalances offer utmost measurement performance for highest accuracy. The user works with smallest samples and easily complies with international regulations for a predefined minimum allowable sample weight.

- Significant cost savings due to lowest minimum sample weights (acc. USP <41>)
- Optimal user safety
- Secure results

METTLER TOLEDO UMX and MX microbalances are designed to boost efficiency, increase reliability and guarantee network compatibility. METTLER TOLEDO sets standards for analytical weighing in the micro-range.

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METTLER TOLEDO

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Technical Data and Features

MX/UMX Micro Balances

High-performance analytical balances

Standard equipment

- Touchscreen display: makes operation easy and fast
- ProFACT: fully automatic time- and temperature-controlled internal adjustment and linearization
- Connectivity: RS232C built-in, second interface as an option
- Direct access: all-round opening of the motor-driven draft shield
- SmartSens: for hands-free operation
- Replaceable protective cover
- Use alphanumeric identifications
- Password protection

Standard features

- Download software from the internet
- Display various weighing units
- Perform differential weighings
- Produce statistical evaluations
- Factorize
- Piece counting, percent weighing
- Tare over the entire weighing range
- MinWeigh: warns if the minimum weight requirement is violated
- Easy connection to LabX PC software

Complete accessories

Filter weighing kit

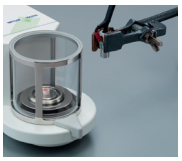
Special filter kits for MX / UMX balances are available suitable for filters up to 110mm diameter. The special construction prevents disturbing environmental influences.

Filter weighing kit up to 110mm **Part no.** 211227

Filter weighing kit up to 50mm **Part no.** 211214

AntiStatic solution

Optional electrodes* can discharge the static electricity of samples or tare containers within a few seconds. (*Requires optional Power supply: 11107766)



Optional point electrode **Part no.** 11107765

Optional U-electrode **Part no.** 11107764

Power supply for universal AntiStatic kit **Part no.** 11107766

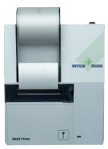
Funnel set

For simple weighing of small amounts of powdery substances.

Funnel set **Part no.** 229265

RS-P42 printer

The RS-P42 Printer documents the measurement values according to the guidelines of a modern Q system.



RS-P42 printer **Part no.** 229265

Technical Data – Nominal and guaranteed values	**UMX2**	**UMX5**	**MX5**
Maximum capacity	2.1g	5.1g	5.1g
Readability	0.0001mg	0.0001mg	0.001mg
Repeatability – at nominal load	0.00025mg	0.0004mg	0.0009mg
– at low loa d (measured at)	0.00025mg (0.2g)	0.00025mg (0.2g)	0.0008mg (0.2g)
Linearity	0.001mg	0.004mg	0.004mg
Eccentric load deviation (test load)[1)]	0.0025mg (1g)	0.005mg (2g)	0.005mg (2g)
Sensitivity offset	0.0015%	0.0007%	0.0007%
Sensitivity temperature drift[2)]	0.0001%/°C	0.0001%/°C	0.0001%/°C
Sensitivity stability[3)]	0.0001%/a	0.0001%/a	0.0001%/a
Interface update rate	7s	7s	7s

Technical data– Typical values[4)]			
Repeatability (sd)	$0.0002mg+2.5x(10^{-8})\square R_gr$	$0.0002mg+3x(10^{-8})\square R_gr$	$0.0005mg+4x(10^{-8})\square R_gr$
Differential linearity deviation (sd)	$1x(10^{-14})g\square R_nt$	$8x(10^{-14})g\square R_nt$	$8x(10^{-14})g\square R_nt$
Differential eccentric load deviation (sd)	$2.5x(10^{-7})\square R_nt$	$3x(10^{-7})\square R_nt$	$3x(10^{-7})\square R_nt$
Sensitivity offset (sd)[2)]	$3x(10^{-6})\square R_nt$	$1.5x(10^{-6})\square R_nt$	$1.5x(10^{-6})\square R_nt$
Minimum weight* (according to USP)	$0.6mg+7.5x(10^{-5})\square R_gr$	$0.6mg+9x(10^{-5})\square R_gr$	$1.5mg+1.2x(10^{-4})\square R_gr$
Minimum weight* (@ U=1%, 2 sd)	$0.04mg+5x(10^{-6})\square R_gr$	$0.04mg+6x(10^{-6})\square R_gr$	$0.1mg+8x(10^{-6})\square R_gr$
Settling time	10s	12s	10s

1) According to OIML R76
2) In the temperature range 10…30°C
3) Stability of sensitivity as from first installation with FACT
4) Can be used for the estimation of uncertainty

sd: standard deviation
Rgr: gross weight
Rnt: net weight (sample weight)
a: year (annum)
* Repeatability and minimum weight can be improved and affected by the following measures: – choice of suitable weighing parameters, – moving to better location, – using smaller tare containers

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